



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,507	04/19/2004	Oliver J. Murphy	LYNN/0127	4287

24945 7590 07/23/2009
STREETS & STEELE
13831 NORTHWEST FREEWAY
SUITE 355
HOUSTON, TX 77040

EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
----------	--------------

1795

MAIL DATE	DELIVERY MODE
-----------	---------------

07/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/828,507	Applicant(s) MURPHY ET AL.	
	Examiner JULIAN MERCADO	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 and 24-55 is/are allowed.
- 6) ☒ Claim(s) 13-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1795

DETAILED ACTION

Remarks

This Office action is responsive to applicant's amendment filed April 27, 2009.

Claims 1-55 are pending for consideration.

Claim Rejections - 35 USC § 102 and 103

The rejection of claims 1, 2, 4-12, 24, 27-32 and 39-45 under 35 U.S.C. 102(b) based on Plowman et al. (U.S. Pat. 5,654,109) has been withdrawn.

The rejection of claims 3, 25 and 26 under 35 U.S.C. 102(b) or 35 U.S.C. 103(a) based on Plowman et al. (U.S. Pat. 5,654,109) has been withdrawn.

The rejection of claims 33-38 under 35 U.S.C. 103(a) based on Plowman et al. (U.S. Pat. 5,654,109) has been withdrawn.

The rejection of claims 46-55 under 35 U.S.C. 103(a) based on Plowman et al. (U.S. Pat. 6,149,810) and White (U.S. Pat. 4,311,567) has been withdrawn.

In withdrawing the ground of rejection(s), the examiner concedes with the assertion that in Plowman et al. the pendent groups, when used in a fuel cell (i.e. when fully assembled where the electrocatalysts are in contact with the membrane), are converted into the proton form, while the claims recite the electrocatalysts "in intimate contact with a cation exchange membrane in an alkali metal cation form..." or in "intimate contact with a sulfonyl fluoride form of a precursor to a cation exchange membrane...." Additionally, the argument that Plowman et al. uses alkali metal hydroxide *prior to* protonating the membrane is persuasive.

Art Unit: 1795

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Plowman et al. (U.S. Pat. 5,654,109).

Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Plowman et al. (U.S. Pat. 5,654,109).

The rejection(s) is maintained for the reasons of record. The examiner notes that the claims are as previously presented with no amendments. Applicant's arguments filed with the present amendment have been fully considered, however they are not found persuasive. For claim 13, applicant submits that the membrane is Plowman et al. is wet as a result of its preparation, washing and boiling in water. This argument is not persuasive. Plowman et al.'s use of water as a solvent is similar to that disclosed throughout applicant's specification. Furthermore, just prior to the same cited portion (lines 5-7) relied upon by applicant (col. 10 lines 10-12), Plowman et al. actually disclose the final membrane to have "*dry* film thicknesses". (emphasis added) Still further, dry membranes are exemplified in prior art attempts (see col. 1 line 33 et seq.) as well as exemplified by Plowman et al. during its preparation, e.g. "air drying

Art Unit: 1795

and sintering at the desired temperature..." where "[u]sually, the coating or films are built up to the thickness desired by repetitive drying and sintering." See col. 5 line 19 et seq.

Allowable Subject Matter

Claims 1-12 and 24-55 are allowed.

The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest a method of providing a membrane and electrode assembly having electrocatalysts in intimate contact with a cation exchange membrane in an alkali metal cation or sulfonyl fluoride form of a precursor to a cation exchange membrane without electrical current passing therethrough, and a method of passing electrical current through a membrane and electrode assembly having electrocatalysts in intimate contact with a cation exchange membrane in a hydrated proton form and then supplying an alkali metal hydroxide solution under electric potential.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 1795

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

/Julian Mercado/
Examiner, Art Unit 1795

/PATRICK RYAN/
Supervisory Patent Examiner, Art Unit 1795

Application/Control Number: 10/828,507

Page 6

Art Unit: 1795